CHEMICAL: CYCLOHEXYLAMINE
CAS #: 108-91-8 NOAA #: 496
UN #: 2357 STCC: 4909139 RTECS: GX0700000
FORMULA: C6H13N LABEL: CORROSIVE, FLAMMABLE LIQUID
NFPA CODES: H2 F3 R0 S

CERCLA (Y/N): EHS (Y/N): Y 313 (Y/N): RCRA:
RQ: 1 TPQ: 10000

LAST UPDATE:10/20/92
STATE at ambient temperature: [Gas, Liquid, Solid] (G/L/S): L

LEVEL OF CONCERN: 0.16000000 gm/m3
LIQUID AMBIENT FACTOR: .00047135
LIQUID BOILING FACTOR: .03
LIQUID MOLTEN FACTOR:

SYNONYMS

1-AMINOCYCLOHEXANE
1-CYCLOHEXYLAMINE
AMINOCYCLOHEXANE
AMINOHEXAHYDROBENZENE
ANILINE, HEXAHYDRO-
BENZENAMINE, HEXAHYDRO-
CHA
CYCLOHEXANAMINE
CYCLOHEXYLAMINE
CYCLOHEXYLAMINE (ACGIH,DOT,OSHA)
HEXAHYDROANILINE
HEXAHYDROBENZENAMINE
MONOCYCLOHEXYLAMINE

CAMEO Response Information
[NOAA, 7600 Sand Point Way NE, Seattle, WA 98115 (206) 526-6317

GENERAL DESCRIPTION:

Cyclohexylamine is a clear colorless to yellow liquid with an ammonia like odor. It has a flash point of 90 deg. F. It is irritating to the eyes and respiratory system. Skin contact may result in burns.
It is lighter than water and soluble in water. Its vapors are heavier than air. Toxic oxides of nitrogen are produced during combustion of this material. ((c) AAR, 1991)01

FIRE & EXPLOSIVE HAZARD:

When heated to decomposition, it emits highly toxic fumes. Vapor may travel a considerable distance to source of ignition and flash back. Toxic oxides of nitrogen are produced during combustion. Nitric acid; reacts vigorously with oxiding materials. Stable, avoid physical damage, storage with oxidizing material.

(EPA, 1990)0±

FIRE FIGHTING:

Wear self-contained (positive pressure if available) breathing apparatus and full protective clothing. Use dry chemical, alcohol foam or carbon dioxide; water may be ineffective. Move container from fire area if you can do it without risk. Stay away from ends of tanks. Cool containers that are exposed to flames with water from the side until well after fire is out. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Keep unnecessary people away; isolate hazard area and deny entry. Isolate for one-half mile in all directions if tank car or truck is involved in fire. Stay upwind; keep out of low areas. (EPA, 1990)00m^H

PROTECTIVE CLOTHING AND SUIT MATERIAL COMPATIBILITY (ACGIN 1985:)

For emergency situations, wear a positive pressure, pressure-demand, full facepiece self-contained breathing apparatus (SCBA) or pressure-demand supplied air respirator with escape SCBA and a fully-encapsulating, chemical resistant suit. (EPA, 1990)

MATERIAL RATINGS

BUTYL GLOVES	1-3 hours
NAT RUB GLOVES	LT 1 hour
NEOP GLOVES	LT 1 hour
NITRILE GLOVES	1-3 hours
PVC GLOVES	LT 1 hour

NONFIRE RESPONSE:

Keep sparks, flames, and other sources of ignition away. Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Attempt to stop leak if without undue personnel hazard. Use water spray to disperse vapors and dilute standing pools of liquid. ((c) AAR, 1991)&S^E

HEALTH HAZARDS:

This is classified as very toxic -- probable oral lethal dose is 50-500 mg/kg or between 1 teaspoon and 1 ounce for a 70 kg (150 lb.) person.

It is considered a nerve poison. This is a weak methemoglobin-forming substance. (EPA, 1990)E^C

FIRST AID:

Warning: Cyclohexylamine is an alkaline-corrosive agent. Contact with eyes may result in severe damage to the cornea, conjunctiva, and blood vessels. Caution is advised.

Signs and Symptoms of Cyclohexylamine Exposure: Acute exposure to cyclohexylamine may result in irritation and burning of the skin, eyes, and mucous membranes. Light-headedness, drowsiness, slurred speech, pupillary dilation, increased salivation, dysphagia (difficulty swallowing), abdominal pain, and spontaneous vomiting may occur. Stridor (high-pitched, noisy respirations), dyspnea (shortness of breath), and pulmonary edema are also common. Apathy and mental confusion may develop, with progression to coma and death.

Emergency Life-Support Procedures:Acute exposure to cyclohexylamine exposure may require decontamination and life support for the victims. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination. Air-purifying or supplied-air respiratory equipment should also be worn, as necessary. Rescue vehicles should carry supplies such as plastic sheeting and disposable plastic bags to assist in preventing spread of contamination.

Inhalation Exposure:

1. Move victims to fresh air. Emergency personnel should avoid self-exposure to cyclohexylamine.
2. Evaluate vital signs including pulse and respiratory rate, and note any trauma. If no pulse is detected, provide CPR. If not breathing, provide artificial respiration. If breathing is labored, administer oxygen or other respiratory support.
3. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.
4. Transport to a health care facility.

Dermal/Eye Exposure:

1. Remove victims from exposure. Emergency personnel should avoid self-exposure to cyclohexylamine.
2. Evaluate vital signs including pulse and respiratory rate, and note any trauma. If no pulse is detected, provide CPR. If not breathing, provide artificial respiration. If breathing is labored, administer oxygen or other respiratory support.
3. Remove contaminated clothing as soon as possible.
4. If eye exposure has occurred, eyesmust be flushed with lukewarm water for at least 30 minutes.
5. Wash exposed skin areas for at least 15 minutes with water.
6. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.
7. Transport to a health care facility.

Ingestion Exposure:

1. Evaluate vital signs including pulse and respiratory rate, and note any trauma. If no pulse is detected, provide CPR. If not breathing, provide artificial respiration. If breathing is

labored, administer oxygen or other respiratory support.
2. DO NOT induce vomiting or attempt to neutralize!
3. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.
4. Activated charcoal is of no value.
5. Give the victims water or milk: children up to 1 year old, 125 mL (4 oz or1/2 cup); children 1 to 12 years old, 200 mL (6 oz or 3/4 cup); adults, 250 mL (8 oz or 1 cup). Water or milk should be given only if victims are conscious and alert.
6. Transport to a health care facility. (EPA, 1990) ^O^RTRIES FOR THIS FIELD ARE: C or O

CHEMICAL PROPERTIES:

Flash Point: 88 F (cc) (EPA, 1990)

Auto Igtn Temp: 560 F (USCG, 1991)

Melting Point: 0.1 F (EPA, 1990)

Vapor Pressure: 9.15 mm at 70 F (USCG, 1991)

Vapor Density (air = 1): 3.42 (EPA, 1990)

Specific Gravity, Liquid: 0.8647 at 77 F (EPA, 1990)

Boiling Point: 274.1 F at 760 mm (EPA, 1990)

Molecular Weight: 99.17 (EPA, 1990)

TLV TWA: 10 ppm ((c)ACGIH,1991)
